

VIA ELECTRONIC FILING

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of )  
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Amendment of Part 101 of the Commission's Rules to ) WT Docket 10-153  
Facilitate the Use of Microwave for Wireless Backhaul )  
and Other Uses and to Provide Additional Flexibility to )  
Broadcast Auxiliary Service and Operational Fixed )  
Microwave Licenses. )

**Response of Wireless Strategies Inc. to the National Spectrum Managers Association Filing  
of January 20, 2012**

**I. Small Antennas**

In their filing, the National Spectrum Managers Association (NSMA)<sup>1</sup> stated they were against allowing small antennas – antennas which would not cause interference nor block future applicants – because licensees could deliberately delay complying with the rules, due to the significant benefits of small antennas.

WSI contends that NSMA's speculation is unfounded because:

- i. For several decades the evidence has shown a preponderance of compliance with the rules and with the intent of the rules; to speculate that the Commission would tolerate blatant evasion of the rules associated with license authorization is incongruous.
- ii. The Fixed Wireless Communications Coalition (FWCC)<sup>2</sup> and WSI<sup>3</sup> have both suggested that when a potential case of interference from a small antenna operator has been identified, the operator of the non-compliant antenna should be given a time limit (30 days) to respond.

NSMA also states: "Specifically, the Commission's existing rules require transmitting and receiving antennas in these [6GHz and 11GHz] bands to meet, at minimum, a [non-compliant] Category B antenna standard. This obligation effectively promotes spectrum efficiency and should be maintained." WSI disagrees – it is the compliant Category A antenna specification of Rule 101.115 that promotes spectrum efficiency and should be maintained. Any non-compliant

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<sup>1</sup> NSMA ex parte filing of January 20, 2012

<sup>2</sup> FWCC ex parte filing, December 30, 2011, page 4, footnote 6.

<sup>3</sup> WSI ex parte filing, January 30, 2012, page 2, last paragraph.

(what NSMA labeled "sub-standard") Category B antenna specification without Rule 101.115(f) is guaranteed to make less efficient use of the spectrum. It is clear that only by requiring Category B antennas to comply with Rule 101.115(f) can the benefits of small antennas be achieved without causing harmful interference and without blocking new applicants.

## II. EIRP

Although NSMA agrees that under the proposed rules small antennas will not cause harmful interference, they speculate that small antenna operators will use unnecessarily high EIRP. WSI disagrees because:

- i. A review of microwave equipment manufacturers shows that of those that offer a high power option, the increase in power is only 3dB above the standard version. As small antennas can be expected to have a gain of at least 6dB less than a Category A antenna, even if an operator added a high power option to try to equal the EIRP of a Category A antenna, the maximum EIRP of a small antenna would still be 3dB less than that of a Category A antenna.
- ii. There is a strong and obvious disincentive to increase the transmitter power to a non-compliant antenna because it would be much more difficult to prior coordinate. Quoting EIBASS:

*"EIBASS agrees that the use of a non-compliant transmitting antenna will not cause interference. This is also the case for a new path with a compliant transmitting antenna. This is because any new path must demonstrate protection of existing paths; it is just such a showing is more difficult with a non-compliant transmitting antenna."*<sup>4</sup>

- iii. In its filing of October 25, 2011, WSI recommend changing the wording of Rule 101.115(f) from "...maximum EIRP allowed by the rules" to "...authorized EIRP."
- iv. WSI agrees with Comsearch<sup>5</sup> that Rule 101.113(a) should be "strictly enforced for Category B antennas." Obviously, all rules should be strictly enforced, including 101.115(f).

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<sup>4</sup> EIBASS ex Parte filing of November 22, 2011, page 3, paragraph 8.

<sup>5</sup> Comments of Comsearch, WT Docket 10-153, filed October 4, 2011, page 7.

### III. Benefits of Small Antennas versus the Argument Against

#### **The Benefits of Smaller Antennas Operating Under the Proposed Minor Changes to Rule 101.115(f)**

- No increased potential to cause harmful interference or to block new applicant paths
- Lower monthly antenna site lease charges
- Lower cost to manufacture
- Easier and therefore less expensive to install
- Lower cost to maintain
- Makes them practical for installation at sites incapable of supporting large antennas
- Raise fewer aesthetic objections
- Permit easier compliance with local zoning and homeowner association rules
- Create employment opportunities in microwave R&D, manufacturing and construction
- Permit the users of the bands to efficiently match the antenna to the application

#### **The Argument Against Allowing Smaller Antennas**

- Speculation that a few operators could deliberately delay complying with the rules associated with their license, and that the Commission will tolerate such blatant evasion of these rules.

#### **IV. Conclusion**

With existing rules and the proposed minor changes to Rule 101.115(f) in place, the Commission would significantly increase the effective use of the 6GHz and 11GHz bands by making it economically viable for new entrants to bring broadband to un-served and underserved communities by using small antennas, all without causing harmful interference or blocking any new applicant paths.

Respectfully submitted

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